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STEEL PLANTS REPORT TECHNOLOGICAL GAINS; MINISTRY PROMOTES HIGH-SPEED METHODS

 $\sqrt{\mathtt{N}}$ umbers in parentheses refer to appended list of sources.7

In October, southern and central metallurgical plants continued to report progress in improving production technology and in adapting high-speed methods. Special orders for construction of the new nover stations continued to be met ahead of schedule.

On 29 September, the collegium of the Ministry of the Metallurgical Industry USSR discussed the problem of the dissemination of Stakhanovite methods advanced by leading steelworkers in the industry. The session heard reports by many of these workers as well as by workers in scientific-research organizations of the metallurgical industry.(1) In his report, Deputy Minister F. A. Petrusha noted that at some plants, and within the ministry itself, very little had been done to study the experience of the best steelworkers and to make it available on a wide scale.

The report was followed by remarks by various leading steelworkers who described their methods of work. Proposals were made that certain technological instructions be revised with a view toward defining precisely what constitutes a high-speed melt, and also that a definite time limit be set on introducing any mechanization feature in a plant in order to eliminate such occurrences as when a new piece of equipment, already installed, cannot be put into operation because it lacks a certain part. Glinkov, professor at the Moscow Institute of Steel, also spoke at the session. (2). In conclusion, Kuz'min, Minister of the Metallurgical Industry USSR, posed the task of creating the necessary conditions for extensive adoption of high-speed methods in steel-smelting shops and of achieving a further increase in metal output. The collegium than outlined practical measures for the propagation of Stakhanovite methods throughout all metallurgical plants.(1)

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In Stalino Oblast, approximately 100 workers and engineers in the oblast's metallurgical plants have been awarded badges and honor certificates for success in mechanization of labor-consuming work, by decree of the Ministry of Metallurgical Industry USSR.

The loading and transport of charge materials from the ore yards to the blast-furnace shop have been completely mechanized at the Yenakiyevo and Konstantinovka plants. An originally designed charging machine has been built at the Stalino Plant. Repair work has been mechanized in all open-hearth furnaces. More than 80 percent of the open-hearth furnaces have been equipped with instruments for automatic feeding of fuel and regulation of the temperature of the furnace during the melt.

Complex mechanization of all production processes, from sorting the ore to leading the finished product onto railroad cars, has been accomplished at the Makeyevka Plant imeni Kirov. At this plant, 99 percent of all operations in the blast-furnace shop, open-hearth shop No 1, and blooming mill shop are already being done by mechanized methods. All metallurgical plants in the Donbass have started to introduce complex mechanization, benefiting from the experience of the Makeyevka Plant.(3)

The Bessemer shop of the Yenakiyevo Metallurgical Plant has achieved the highest production indexes in its 52 years of operation. The shop produces rail steel which is then rolled into mine rails in the rolling shop.(4) In September, the Bessemer shop produced a trainload of steel above plan.(5)

On 8 October, the section-rolling shop of the Stalino Metallurgical Plant imeni Stalin began to meet its second order for rolled products for the Volga GES projects. The order was completed on the morning of 9 October.(6)

On 20 October, the "Zaporozhstal" Plant received three orders for steel sheet for the Kuybyshev project which were scheduled to be completed during the fourth quarter. The plant completed these orders ahead of schedule.(7)

The medium-gauge sheet mill of the sheet-rolling shop, Plant imeni Dzerzhinskiy, Dneprodzerzhinsk, is meeting orders for the Stalingrad GES. The shop has already shipped some products to the Bagley Railroad Station and from there to the Volga project. The shop is producing these orders toward fulfillment of the 1951 plan, having been the first in the plant to complete the Five-Year Plan.(8) The iron-rolling shop of the Plant imeni Dzerzhinskiy has shipped the first dozen tons of section iron to the Kakhovka GES project.(9)

The plant's section-rolling shop is also meeting orders from the Stalingrad GES, having completed ahead of schedule an order for mine rails. Workers at the "640" and "500" mills particularly excelled in this work.(10) The plant has also shipped the first trainload of rails to the Kuybyshev GES project and by the end of October, will send one additional trainload of rails.(11)

In the plant's open-hearth shop No 2, a leading steelworker recently completed a melt in 4 hours 15 minutes and obtained 13 tons of steel per square meter of hearth, as compared with the progressive norm of 7.3 tons. This is the highest steel recovery yet achieved in the Dnepr region.(12)

At the Dnepropetrovsk Metallurgical Plant imeni Libknekht, a leading steel-worker recently completed a high-speed melt with a production of 9.23 tons of steel, 12 times the progressive norm.(13)

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The Lutugino Iron-Casting Plant, Voroshilovgrad Oblast, which produces rollers for the metallurgical industry, completed its first order for the new construction projects ahead of schedule. The plant is currently exceeding its production plan and has made substantial improvements in the quality of its product. The plant has won the Transferable Red Banner of the Ministry of the Metallurgical Industry and of the VTSSPS (Vsesoyuznyy Tsentral'nyy Sovet Professional'nykh Soyuzov, All-Union Central Council of Trade Unions).

The plant has started production of the new super-hard rollers for rail mills which help to increase rail production considerably. The plant was helped in this by "Azovstal" Plant workers. In addition, the plant has started production of double-layer, highly durable rollers for rolling mills. The plant is testing new, experimental hard alloys, the use of which will help to double the speed of cutting chilled cast iron and to decrease the time required for machining rollers (14)

The metallurgical industry in Moscov city and oblast fulfilled the thirdquarter gross-production plan 102 percent, as reported by the Statistics Administration of Moscov City and Oblast. In the third quarter, production of rolled metal was above plan. Steel production in the third quarter was 106 percent of the third quarter 1949, and rolled metal production was 113 percent of the 1949 production.(15)

On 21 October, the Moscow "Serp i molot" Plant completed the 10-month plan for gross-production output. Open-hearth shop No 1 has been awarded the Transferable Red Banner of the Council of Ministers USSR and the title of best shop in the USSR for its achievements in the all-Union third-quarter competition among metallurgy enterprises. For 6 years in succession, this shop has been exceeding its plans from month to month. During the third quarter, the shop saved one million rubles above plan, increased the recovery of steel per square meter of hearth, and increased the durability of the furnaces between repairs. (16)

The Lashma Iron-Casting Plant imeni Karl Libknekht, Ryazan' Oblast, has already completed the 1950 year plan and is 2 months and 20 days ahead of schedule.(17)

In Gor'kiy Oblast, the Vyksa Metallurgical Plant has received its first order for welded pipe for the Volga power projects. The plant has already shipped dozens of tons of pipe to the Kuybyshev project.(8)

The Novo-Tul'skiy Metallurgical Plant, Tula Oblast, is meeting orders from the "Elektrosila" Plant and others in Leningrad which are in turn producing equipment for the Volga projects. Since the beginning of October, blast-furnace workers have sent dozens of carloads of pig iron to their consumers.(18)

The rolling shop of the Leningrad Rolled Steel, Wire, and Cable Plant imeni Molotov is fulfilling an order from the Volga power projects.(19)

In the Karelo-Finnish SSR, leading steelworkers in the open-hearth shop of the Vyartsilya Metallurgical Plant have cut the melt down to 5 hours 20 minutes as compared with the norm of 9 hours. (20)

P. Zvaygzne, director of the "Krasnyy Metallurg" Plant in Liyepaya, Latvian SSR, reports that although substantial achievements have been made by his plant, the Ministry of Local Industry is hampering further progress there.

One of the achievements was the conversion of the plant to cost accounting. After the open-hearth and rolling shops had been changed over, the remaining shops were also put on a cost-accounting basis. At the beginning of each quarter, all ships receive a production plan and budget, broken down by months. The plan defines the production task in all its aspects, including quantity of output, wages, production expenses by item, material consumption, and technical and economic indexes for each shop.

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The work of the open-hearth shop on the cost-accounting system proves the value of the measure. In 1949, the shop out consumption of materials for the charge per ton of smelted steel by 6.1 percent, making it possible to produce additional hundreds of tons of steel. The 9-month gross-production plan was fulfilled ll1.9 percent, and the cost of one ton of steel was decreased by 10 rubles 56 kopeks.

The shop is still using the same type of coal as formerly, but its consumption has been substantially reduced. In all of 1949, the shop saved 862 tons of fuel, and 631 tons in 6 months of 1950. The saving in electric power this year has smounted to 19,000 kilowatt-hours. The use of intraplant cost accounting has spurred competition and made it more exact, since cost accounting mirrors the activity of each shop.

This year, the plant expects to extend the system to individual shifts and to individual furnaces, mills, and other units of equipment. The plant, however, is having twouble with the Ministry of Local Industry Lativan SSR, which has often negated all advances made by the plant under the cost-accounting system. The ministry has not clarified the problem of sale and transport of the plant's products, with the result that a great quantity of finished goods accumulate at the plant and the plant does not know to whom or where the goods are to be sent. Enterprises of the ministry have become continual debtors of the plant. In September 1949, the ministry approved a plan of costs for the plant on the basis of then-prevailing state prices for fuel and metal scrap. In March 1950, the prices for coal and metal scrap changed, but this change is not yet reflected in the cost plan which has been given to "Kraenyy metallurg." The ministry has not bothered to correct the plan. (21)

"Krasnyy metallurg" has also made great strides in the improvement of technology, mechanization of labor-consuming process, and maintenance of a steady pace in output of production. For example, the removal and transport of waste products such as slag from the open-hearth shop has been completely mechanized, where once it was done completely by hand, and now consumes only several minutes. The slag is run off from the furnace into a large container, which, when full, is transported by bridge crane to a truck or railroad flatcar. The process of crushing roasted dolomite for open-hearth furnace use has been mechanized, a crusher replacing the former sledge hammer. Automatic cars have replaced hand transport of containers in the chain shop.

Much remains to be done to eliminate the last vestiges of heavy hand labor. Intraplant transport is one of the first targets for mechanization. The carts which operate in the ore yard and are run by three or four workers can no longer be considered adequate. Automotive cars will soon be introduced in this work.

Among the changes in technology, the process of repairing the hearth has been improved, considerably increasing the durability of the hearth. The process of cold drawing of wire has been radically changed, with the result that output has considerably increased even with the same equipment, and wire quality has become faultless.

The plant is working at a steady pace, producing the required amount in each 10-day period of each month, thus making it possible to introduce the hourly work schedule into the plant's shops. This schedule establishes a stricter control over the daily operations of each shift, each mill and brigade, and makes it easier for directors to eliminate mistakes and shortcomings of certain sectors of production. The increase in labor productivity in the rolling shop is a good indication of the effectiveness of the hourly schedule. In the first half of 1950, the plant produced 16.6 percent more rolled section products than in 1948, and 15 percent more wire rod.(22) Among the other great changes made in the rolling shop was the recent introduction of a third shift. Workers are doing their utmost to reduce the time spent in each operation, and are now rolling 15 ingots in 12-13 minutes, as compared with the former 17 minutes, on the section-rolling mill.(23)

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Conversion of the open-hearth furnaces to the hourly schedule was more difficult than in the rolling shop, since the smelting cycle lasts 6-7 hours. The most effective schedule there was found to be the schedule per melt, which, in effect, worked much the same as the hourly schedule in the rolling shop.

Despite the plant's achievements under the hourly schedule, the Ministry of Local Industry has not upheld the plant's initiative in this field. For example, plant equipment is often ordered to be used for production of some profile for which it is not primarily designed. For example, the wire mill, designed to roll standard wire rod, is adjusted to produce small-section rolled products, thus sharply decreasing its productivity. The situation in regard to the medium-section mill is even worse. The mill has been ordered to roll as many as 80 different profiles per month, instead of 8-10. Thus, after each 20-40 tons of production, the mill must by stopped and the rollers changed to start rolling a new profile. This is expensive for the state and decreases output. Meanwhile, the ministry is continuing to plan for an extremely extensive assortment of goods to be produced at the plant.(22)

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